AMENDMENTS

In the Claims:

Please cancel Claims 20-22 without prejudice.

1. (Previously amended) A medical device for treating a portion of the body of a living organism, comprising, at least one layer of conductive material,

wherein the conductive material comprises a resistance less than about 1000 ohms/cm^2;

wherein the conductive material is at least partially composed of a biologically inert polymer which is at least partially coated with a metal or a metal alloy; and

wherein no external energy source or galvanic cell action is required to alter an electrodynamic process of a portion of the body of a living organism.

3. (Previously amended) The medical device of Claim 1, wherein the polymer is nylon, polyethylene, polypropylene, wool, silk, cotton, or elastomers.

4. (Previously Amended) The medical device of Claim 1, wherein the metal is selected from the group consisting of silver, gold, aluminum, nickel, tin, stainless steel, copper, and combinations thereof, and the metal alloy is selected from the group consisting of aluminum-copper, aluminum-magnesium, copper-gold, copper-nickel, copper-palladium, gold-palladium, gold-silver, iron-nickel and silver-palladium, and combinations thereof.

5. (Original) The medical device of Claim 1, wherein the medical device is a wound dressing.

6. (Original) The medical device of Claim 1, wherein the medical device is an orthotic appliance.

7. (Original) The medical device of Claim 1, wherein the medical device is a dental appliance.

8. (Original) The medical device of Claim 5, wherein the wound dressing is shaped for a use around external fixture pin structures.

9. (Original) The medical device of Claim 5, wherein the wound dressing is shaped for a use around ostomy sites.

10. (Original) The medical device of Claim 5, wherein the wound dressing is shaped for a use around tracheostomy sites.

11. (Original) The medical device of Claim 5, wherein the wound dressing is shaped for a use around catheter sites.

12. (Original) The medical device of Claim 5, wherein the wound dressing is shaped for packing body cavities.

13. (Original) The medical device of Claim 1, wherein the device has a tubular shape.

14. (Original) The medical device of Claim 13, wherein the tubular shape is incorporated into a wound drain.

15. (Currently amended) A medical device, comprising,

a) a wound dressing [incorporated into an appliance] comprising [wherein the wound dressing comprises] more than two layers of a fibrous material;

wherein the material contains nonmetalized fibers and fibers that are at least partially coated with a metallic material to yield metalized fibers, each layer being joined to an adjacent layer and having a ratio of metalized fibers to nonmetalized fibers; and

b) an appliance, wherein the wound dressing is incorporated into the appliance such that the layers of the wound dressing form a gradient of metalized fiber to nonmetalized fiber ratios, the highest ratio layer capable of being placed in contact with a wound site.

16. (Original) The medical device of Claim 15, wherein the appliance is shaped for a use selected from the group consisting of orthopedic, dental, catheter, packing a body cavity, an ostomy site, a tracheostomy site, and around external fixture pin structures.

17. (Original) The medical device of Claim 15 wherein the appliance has a tubular shape.

18. (Currently amended) The medical device of Claim 17 wherein the [tubular shape comprises] appliance is a wound drain.

19. (Previously amended) A method for treating a portion of the body of a living organism, comprising,

a) applying a medical device to a portion of the body of a living organism, wherein the medical device comprises at least one layer of conductive material;

wherein the conductive material comprises a resistance less than about 1000 ohms/cm^2;

wherein the conductive material is at least partially composed of a biologically inert polymer which is at least partially coated with a metal or metal alloy; and

wherein no external energy source or galvanic cell action is required to alter an electrodynamic process of a portion of the body of a living organism;

b) altering the electric parameters of the portion of the body without using an external energy source or galvanic cell action; and

c) lowering the electrical resistance and increasing the current of the portion of the body.